IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A method of generating a mask ~~masks~~ for printing a pattern comprising a plurality of features having varying critical dimensions, said method comprising the steps of:

obtaining data representing said pattern;

defining a plurality of distinct zones based on the critical dimensions of said plurality of features;

~~categorizing~~ assigning each of said features into one of said plurality of distinct zones; and

~~modifying~~ forming a given feature in said mask pattern utilizing a technique selected in accordance with the ~~for each feature categorized into a~~ predefined distinct zone said given feature is assigned, ~~of said plurality of distinct zones~~

wherein said plurality of distinct zones comprises:

a first zone in which features having a critical dimension less than or equal to a first predetermined amount are imaged utilizing chromeless phase lithography techniques;

a second zone in which features having a critical dimension greater than said first predetermined amount and less than a second predetermined amount are imaged utilizing a combination of chromeless phase lithography techniques and chrome; and

a third zone in which features having a critical dimensions greater than said second predetermined amount are imaged utilizing chrome.

2. (Cancelled)

3. (Currently amended) The method of generating a mask ~~masks~~ according to claim 1 ~~2~~, wherein at least one of said features in said first zone is implemented in said mask as adjacent phase edges etched in ~~said~~ a substrate ~~wafer~~.

4. (Currently amended) The method of generating a mask ~~masks~~ according to claim 1 ~~2~~, wherein at least one of said features in said second zone is implemented in said mask as adjacent phase edges etched in a substrate, with chrome patches disposed on an upper surface of said substrate remaining between said adjacent phase edges.

5. (Currently amended) The method of generating a mask ~~masks~~ according to claim 4, wherein said chrome patches operate to control the percentage transmission of a light source incident on said mask.

6. (Currently amended) The method of generating a mask ~~masks~~ according to claim 1 ~~2~~, further comprising the steps of:

~~compiling~~ identifying the features contained in said first zone, and the chromeless phase components of the features contained in said second zone ~~region~~,

generating a first mask for imaging the chromeless phase components contained in said first zone and said second zone,

~~compiling~~ identifying the chrome components of the features contained in said second zone, and the chrome components of the features contained in said third zone ~~region~~,

generating a second mask for imaging the chrome components contained in said second zone and said third zone.

7-12. (Cancelled)

13. (Currently amended) A computer program product for controlling a computer comprising a recording medium readable by the computer, means recorded on the recording

medium for directing the computer to generate files corresponding to <u>a mask</u> ~~masks~~ for printing a pattern comprising a plurality of features having varying critical dimensions, said generation of said files comprising the steps of:

obtaining data representing said pattern;

defining a plurality of distinct zones based on the critical dimensions of said plurality of features;

~~categorizing~~ <u>assigning</u> each of said features into one of said plurality of distinct zones; and

~~modifying~~ <u>forming a given feature in</u> said mask pattern <u>utilizing a technique selected in accordance with the</u> ~~for each feature categorized into~~ <u>a</u> predefined distinct zone <u>said given feature is assigned,</u> ~~of said plurality of distinct zones~~

<u>wherein said plurality of distinct zones comprises:</u>

<u>a first zone in which features having a critical dimension less than or equal to a first predetermined amount are imaged utilizing chromeless phase lithography techniques;</u>

<u>a second zone in which features having a critical dimension greater than said first predetermined amount and less than a second predetermined amount are imaged utilizing a combination of chromeless phase lithography techniques and chrome; and</u>

<u>a third zone in which features having a critical dimensions greater than said second predetermined amount are imaged utilizing chrome.</u>

14. (Cancelled)

15. (Currently amended) The computer program product according to claim <u>13</u> ~~14~~, wherein at least one of said features in said first zone is implemented in said mask as adjacent phase edges etched in ~~said~~ <u>a</u> substrate ~~wafer~~.

16. (Currently amended) The computer program product according to claim 13 14, wherein at least one of said features in said second zone is implemented in said mask as adjacent phase edges etched in a substrate, with chrome patches disposed on an upper surface of said substrate remaining between said adjacent phase edges.

17. (Original) The computer program product according to claim 16, wherein said chrome patches operate to control the percentage transmission of a light source incident on said mask.

18. (Currently amended) The computer program product according to claim 13 14, said generation of files further comprising the steps of:

compiling identifying the features contained in said first zone, and the chromeless phase components of the features contained in said second zone region,

generating a first mask for imaging the chromeless phase components contained in said first zone and said second zone,

compiling identifying the chrome components of the features contained in said second zone, and the chrome components of the features contained in said third zone region,

generating a second mask for imaging the chrome components contained in said second zone and said third zone.

19. (New) A device manufacturing method comprising the steps of:

(a) providing a wafer that is at least partially covered by a layer of radiation-sensitive material;

(b) providing a projection beam of radiation using a radiation system;

(c) using a pattern on a mask to endow the projection beam with a pattern in its cross-section;

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(d) projecting the patterned beam of radiation onto a target portion of the layer of radiation-sensitive material,

wherein said mask is formed by:

obtaining data representing said pattern;

defining a plurality of distinct zones based on critical dimensions of a plurality of features;

assigning each of said features into one of said plurality of distinct zones; and

forming a given feature in said mask pattern utilizing a technique selected in accordance with the predefined distinct zone said given feature is assigned,

wherein said plurality of distinct zones comprises:

a first zone in which features having a critical dimension less than or equal to a first predetermined amount are imaged utilizing chromeless phase lithography techniques;

a second zone in which features having a critical dimension greater than said first predetermined amount and less than a second predetermined amount are imaged utilizing a combination of chromeless phase lithography techniques and chrome; and

a third zone in which features having a critical dimensions greater than said second predetermined amount are imaged utilizing chrome.

20. (New) A device manufactured using a method according to claim 19.

21. (New) A mask for use in a photolithography process manufactured in accordance with claim 1.

22. (New) The method of generating a mask according to claim 1, wherein, in the step of defining a plurality of distinct zones, a simulation process is utilized to determine the aerial

image behavior of a selected imaging process relative to the critical dimensions of the plurality of features.

23. (New) The method of generating a mask according to claim 4, wherein said chrome patches disposed on an upper surface of said substrate remaining between said adjacent phase edges are formed by initially depositing chrome features which extend orthogonal to the longitudinal axis of said at least one said feature in said second zone.

24. (New) The computer program product according to claim 13, wherein, in the step of defining a plurality of distinct zones, a simulation process is utilized to determine the aerial image behavior of a selected imaging process relative to the critical dimensions of the plurality of features.

25. (New) The computer program product according to claim 16, wherein said chrome patches disposed on an upper surface of said substrate remaining between said adjacent phase edges are formed by initially depositing chrome features which extend orthogonal to the longitudinal axis of said at least one said feature in said second zone.

26. (New) A method of printing a pattern comprising a plurality of features having varying critical dimensions, said method comprising the steps of:

obtaining data representing said pattern;

defining a plurality of distinct zones;

assigning each of said features into one of said plurality of distinct zones; and

forming a given feature in a mask utilizing a technique selected in accordance with the distinct zone said given feature is assigned,

wherein said plurality of distinct zones comprises:

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a first zone in which features having a critical dimension less than or equal to a first predetermined amount are imaged utilizing chromeless phase lithography techniques;

a second zone in which features having a critical dimension greater than said first predetermined amount and less than a second predetermined amount are imaged utilizing a combination of chromeless phase lithography techniques and chrome; and

a third zone in which features having a critical dimensions greater than said second predetermined amount are imaged utilizing chrome.

27. (Currently amended) The method according to claim 26, further comprising the steps of:

identifying the features contained in said first zone, and the chromeless phase components of the features contained in said second zone,

generating a first mask for imaging the chromeless phase components contained in said first zone and said second zone,

identifying the chrome components of the features contained in said second zone, and the chrome components of the features contained in said third zone,

generating a second mask for imaging the chrome components contained in said second zone and said third zone.

28. (New) The method according to claim 26, wherein, in the step of defining a plurality of distinct zones, a simulation process is utilized to determine the aerial image behavior of a selected imaging process relative to the critical dimensions of the plurality of features.

29. (New) A device manufactured using a method according to claim 26.